



Element Materials Technology Lafayette
2417 W. Pinhook Road
Lafayette, LA 70508-3344
TEL: 337.235.0483 FAX: 337.233.6540
Website: www.element.com

May 12, 2014

Duane Piranio
Arabie Environmental
P O Box 928
Lake Charles, LA 70602
TEL: (337) 263-1596
FAX (337) 436-3641

RE: Moore/11301

Order No.: 14041290

Dear Duane Piranio:

Element Materials Technology Lafayette, LLC received 24 sample(s) on 4/28/2014 for the analyses presented in the following report.

In accordance with your instructions Element Lafayette conducted the analysis shown on the following pages on samples submitted by your company. The results related only to the items tested. Unless otherwise noted, all analyses were conducted using EPA approved methodologies and all test results meet all requirements of TNI. All relevant sampling information is on the attached Chain-of-Custody form.

All soil data, except for 29-B, are on a wet-weight basis unless otherwise indicated in the units field as –dry.

LELAP Certification No.: 01997. A scope of accredited parameters is available upon request. A "#" by the test method or analyte indicates this parameter is outside the scope of accreditation.

Estimated uncertainty is available upon request. This report shall not be reproduced except in full, without the written approval of the laboratory.

If you have any questions regarding these test results, please feel free to call.

A handwritten signature in blue ink that reads 'Annie Reedy'.

Annie Reedy
Manager, Analytical Services
2417 W. Pinhook Road
Lafayette, LA 70508-3344



Element Materials Technology Lafayette
2417 W. Pinhook Road
Lafayette, LA 70508-3344
TEL: 337.235.0483 FAX: 337.233.6540
Website: www.element.com

Case Narrative

WO#: 14041290

Date: 5/12/2014

CLIENT: Arabie Environmental

Project: Moore/11301

Unless specified by the client, a duplicate or MS/MSD, wherever applicable, is randomly selected and analyzed from each analytical batch provided sample volume is sufficient. The sample chosen for duplicate or MS/MSD may or may not be a sample submitted in this workorder. A method blank and/or a lab control sample (LCS)/lab control sample duplicate (LCSD), wherever applicable, are processed as a quality control check for each analytical batch. When the matrix QC data is not available due to insufficient sample volume or when the results indicate possible matrix effect, the validity of the batch is determined by the method blank and LCS/LCSD.

Any other exceptions associated with this report will be footnoted in the results page(s) or the QC summary page(s).



Element Materials Technology Lafayette
2417 W. Pinhook Road
Lafayette, LA 70508-3344
TEL: 337.235.0483 FAX: 337.233.6540
Website: www.element.com

Analytical Report

(consolidated)

WO#: **14041290**

Date Reported: **5/12/2014**

CLIENT: Arabie Environmental **Collection Date:** 4/24/2014 10:42:00 AM
Project: Moore/11301
Lab ID: 14041290-001 **Matrix:** SOIL
Client Sample ID B42 (0-1)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SPE				29B/E120.1	Analyst: MXT	
Electrical Conductivity	15.4	0.10	*	mmhos/cm	1	5/6/2014 9:05:00 AM
SODIUM ADSORPTION RATIO				29B/SW6010B 29B	Analyst: STS	
Sodium Adsorption Ratio	23.9	0.100	*		1	5/7/2014
Soluble Calcium	21.8	1.00		meq/L	1	5/7/2014
Soluble Magnesium	9.76	1.00		meq/L	1	5/7/2014
Soluble Sodium	95.0	1.00		meq/L	1	5/7/2014

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	C	Value is below Minimum Compound Limit.	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
	N	Tentatively identified compounds	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
	PL	Permit Limit	R	RPD outside accepted recovery limits
	RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits



Element Materials Technology Lafayette
2417 W. Pinhook Road
Lafayette, LA 70508-3344
TEL: 337.235.0483 FAX: 337.233.6540
Website: www.element.com

Analytical Report

(consolidated)

WO#: 14041290

Date Reported: 5/12/2014

CLIENT: Arabie Environmental **Collection Date:** 4/24/2014 10:50:00 AM
Project: Moore/11301
Lab ID: 14041290-002 **Matrix:** SOIL
Client Sample ID B42 (1-2)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SPE				29B/E120.1	Analyst: MXT	
Electrical Conductivity	12.1	0.10	*	mmhos/cm	1	5/6/2014 9:05:00 AM
SODIUM ADSORPTION RATIO				29B/SW6010B 29B	Analyst: STS	
Sodium Adsorption Ratio	11.6	0.100			1	5/7/2014
Soluble Calcium	32.8	1.00		meq/L	1	5/7/2014
Soluble Magnesium	17.0	1.00		meq/L	1	5/7/2014
Soluble Sodium	57.9	1.00		meq/L	1	5/7/2014

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
C	Value is below Minimum Compound Limit.	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Matrix Interference
N	Tentatively identified compounds	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits



Element Materials Technology Lafayette
2417 W. Pinhook Road
Lafayette, LA 70508-3344
TEL: 337.235.0483 FAX: 337.233.6540
Website: www.element.com

Analytical Report

(consolidated)

WO#: 14041290

Date Reported: 5/12/2014

CLIENT: Arabie Environmental **Collection Date:** 4/24/2014 10:57:00 AM
Project: Moore/11301
Lab ID: 14041290-003 **Matrix:** SOIL
Client Sample ID B42 (2-3)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SPE				29B/E120.1	Analyst: MXT	
Electrical Conductivity	7.17	0.10	*	mmhos/cm	1	5/6/2014 9:05:00 AM
SODIUM ADSORPTION RATIO				29B/SW6010B 29B	Analyst: STS	
Sodium Adsorption Ratio	7.53	0.100			1	5/7/2014
Soluble Calcium	19.0	1.00		meq/L	1	5/7/2014
Soluble Magnesium	12.8	1.00		meq/L	1	5/7/2014
Soluble Sodium	30.1	1.00		meq/L	1	5/7/2014

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	C	Value is below Minimum Compound Limit.	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
	N	Tentatively identified compounds	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
	PL	Permit Limit	R	RPD outside accepted recovery limits
	RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits



Element Materials Technology Lafayette
2417 W. Pinhook Road
Lafayette, LA 70508-3344
TEL: 337.235.0483 FAX: 337.233.6540
Website: www.element.com

Analytical Report

(consolidated)

WO#: 14041290

Date Reported: 5/12/2014

CLIENT: Arabie Environmental **Collection Date:** 4/24/2014 11:23:00 AM
Project: Moore/11301
Lab ID: 14041290-004 **Matrix:** SOIL
Client Sample ID B43 (0-1)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SPE				29B/E120.1	Analyst: MXT	
Electrical Conductivity	11.2	0.10	*	mmhos/cm	1	5/6/2014 9:05:00 AM
SODIUM ADSORPTION RATIO				29B/SW6010B 29B	Analyst: STS	
Sodium Adsorption Ratio	18.9	0.100	*		1	5/7/2014
Soluble Calcium	16.7	1.00		meq/L	1	5/7/2014
Soluble Magnesium	9.14	1.00		meq/L	1	5/7/2014
Soluble Sodium	67.8	1.00		meq/L	1	5/7/2014

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	C	Value is below Minimum Compound Limit.	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
	N	Tentatively identified compounds	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
	PL	Permit Limit	R	RPD outside accepted recovery limits
	RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits



Element Materials Technology Lafayette
2417 W. Pinhook Road
Lafayette, LA 70508-3344
TEL: 337.235.0483 FAX: 337.233.6540
Website: www.element.com

Analytical Report

(consolidated)

WO#: **14041290**

Date Reported: **5/12/2014**

CLIENT: Arabie Environmental **Collection Date:** 4/24/2014 11:30:00 AM
Project: Moore/11301
Lab ID: 14041290-005 **Matrix:** SOIL
Client Sample ID B43 (1-2)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SPE				29B/E120.1	Analyst: MXT	
Electrical Conductivity	4.32	0.10	*	mmhos/cm	1	5/6/2014 9:05:00 AM
SODIUM ADSORPTION RATIO				29B/SW6010B 29B	Analyst: STS	
Sodium Adsorption Ratio	7.27	0.100			1	5/7/2014
Soluble Calcium	8.84	1.00		meq/L	1	5/7/2014
Soluble Magnesium	6.25	1.00		meq/L	1	5/7/2014
Soluble Sodium	20.0	1.00		meq/L	1	5/7/2014

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	C	Value is below Minimum Compound Limit.	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
	N	Tentatively identified compounds	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
	PL	Permit Limit	R	RPD outside accepted recovery limits
	RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits



Element Materials Technology Lafayette
2417 W. Pinhook Road
Lafayette, LA 70508-3344
TEL: 337.235.0483 FAX: 337.233.6540
Website: www.element.com

Analytical Report

(consolidated)

WO#: **14041290**

Date Reported: **5/12/2014**

CLIENT: Arabie Environmental **Collection Date:** 4/24/2014 11:37:00 AM
Project: Moore/11301
Lab ID: 14041290-006 **Matrix:** SOIL
Client Sample ID B43 (2-3)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SPE				29B/E120.1		Analyst: MXT
Electrical Conductivity	2.14	0.10		mmhos/cm	1	5/6/2014 9:05:00 AM
SODIUM ADSORPTION RATIO				29B/SW6010B	29B	Analyst: STS
Sodium Adsorption Ratio	6.18	0.100			1	5/7/2014
Soluble Calcium	3.33	1.00		meq/L	1	5/7/2014
Soluble Magnesium	2.62	1.00		meq/L	1	5/7/2014
Soluble Sodium	10.6	1.00		meq/L	1	5/7/2014

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	C	Value is below Minimum Compound Limit.	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
	N	Tentatively identified compounds	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
	PL	Permit Limit	R	RPD outside accepted recovery limits
	RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits



Element Materials Technology Lafayette
2417 W. Pinhook Road
Lafayette, LA 70508-3344
TEL: 337.235.0483 FAX: 337.233.6540
Website: www.element.com

Analytical Report

(consolidated)

WO#: 14041290

Date Reported: 5/12/2014

CLIENT: Arabie Environmental **Collection Date:** 4/24/2014 12:07:00 PM
Project: Moore/11301
Lab ID: 14041290-007 **Matrix:** SOIL
Client Sample ID B44 (0-1)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SPE				29B/E120.1	Analyst: MXT	
Electrical Conductivity	5.27	0.10	*	mmhos/cm	1	5/6/2014 9:05:00 AM
SODIUM ADSORPTION RATIO				29B/SW6010B 29B	Analyst: STS	
Sodium Adsorption Ratio	9.87	0.100			1	5/7/2014
Soluble Calcium	10.6	1.00		meq/L	1	5/7/2014
Soluble Magnesium	6.10	1.00		meq/L	1	5/7/2014
Soluble Sodium	28.5	1.00		meq/L	1	5/7/2014

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	C	Value is below Minimum Compound Limit.	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
	N	Tentatively identified compounds	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
	PL	Permit Limit	R	RPD outside accepted recovery limits
	RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits



Element Materials Technology Lafayette
2417 W. Pinhook Road
Lafayette, LA 70508-3344
TEL: 337.235.0483 FAX: 337.233.6540
Website: www.element.com

Analytical Report

(consolidated)

WO#: **14041290**

Date Reported: **5/12/2014**

CLIENT: Arabie Environmental **Collection Date:** 4/24/2014 12:13:00 PM
Project: Moore/11301
Lab ID: 14041290-008 **Matrix:** SOIL
Client Sample ID B44 (1-2)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SPE				29B/E120.1	Analyst: MXT	
Electrical Conductivity	4.25	0.10	*	mmhos/cm	1	5/6/2014 9:05:00 AM
SODIUM ADSORPTION RATIO				29B/SW6010B 29B	Analyst: STS	
Sodium Adsorption Ratio	6.54	0.100			1	5/7/2014
Soluble Calcium	9.65	1.00		meq/L	1	5/7/2014
Soluble Magnesium	7.02	1.00		meq/L	1	5/7/2014
Soluble Sodium	18.9	1.00		meq/L	1	5/7/2014

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	C	Value is below Minimum Compound Limit.	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
	N	Tentatively identified compounds	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
	PL	Permit Limit	R	RPD outside accepted recovery limits
	RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits



Element Materials Technology Lafayette
2417 W. Pinhook Road
Lafayette, LA 70508-3344
TEL: 337.235.0483 FAX: 337.233.6540
Website: www.element.com

Analytical Report

(consolidated)

WO#: **14041290**

Date Reported: **5/12/2014**

CLIENT: Arabie Environmental **Collection Date:** 4/24/2014 12:20:00 PM
Project: Moore/11301
Lab ID: 14041290-009 **Matrix:** SOIL
Client Sample ID B44 (2-3)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SPE				29B/E120.1		Analyst: MXT
Electrical Conductivity	1.99	0.10		mmhos/cm	1	5/6/2014 9:05:00 AM
SODIUM ADSORPTION RATIO				29B/SW6010B	29B	Analyst: STS
Sodium Adsorption Ratio	5.06	0.100			1	5/7/2014
Soluble Calcium	3.50	1.00		meq/L	1	5/7/2014
Soluble Magnesium	3.04	1.00		meq/L	1	5/7/2014
Soluble Sodium	9.16	1.00		meq/L	1	5/7/2014

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
C	Value is below Minimum Compound Limit.	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Matrix Interference
N	Tentatively identified compounds	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits



Element Materials Technology Lafayette
2417 W. Pinhook Road
Lafayette, LA 70508-3344
TEL: 337.235.0483 FAX: 337.233.6540
Website: www.element.com

Analytical Report

(consolidated)

WO#: **14041290**

Date Reported: **5/12/2014**

CLIENT: Arabie Environmental **Collection Date:** 4/24/2014 12:54:00 PM
Project: Moore/11301
Lab ID: 14041290-010 **Matrix:** SOIL
Client Sample ID B45 (0-1)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SPE				29B/E120.1	Analyst: MXT	
Electrical Conductivity	11.6	0.10	*	mmhos/cm	1	5/6/2014 9:05:00 AM
SODIUM ADSORPTION RATIO				29B/SW6010B 29B	Analyst: STS	
Sodium Adsorption Ratio	27.5	0.100	*		1	5/7/2014
Soluble Calcium	11.2	1.00		meq/L	1	5/7/2014
Soluble Magnesium	5.06	1.00		meq/L	1	5/7/2014
Soluble Sodium	78.6	1.00		meq/L	1	5/7/2014

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	C	Value is below Minimum Compound Limit.	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
	N	Tentatively identified compounds	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
	PL	Permit Limit	R	RPD outside accepted recovery limits
	RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits



Element Materials Technology Lafayette
2417 W. Pinhook Road
Lafayette, LA 70508-3344
TEL: 337.235.0483 FAX: 337.233.6540
Website: www.element.com

Analytical Report

(consolidated)

WO#: **14041290**

Date Reported: **5/12/2014**

CLIENT: Arabie Environmental **Collection Date:** 4/24/2014 1:01:00 PM
Project: Moore/11301
Lab ID: 14041290-011 **Matrix:** SOIL
Client Sample ID B45 (1-2)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SPE				29B/E120.1	Analyst: MXT	
Electrical Conductivity	10.0	0.10	*	mmhos/cm	1	5/6/2014 9:05:00 AM
SODIUM ADSORPTION RATIO				29B/SW6010B 29B	Analyst: STS	
Sodium Adsorption Ratio	14.3	0.100	*		1	5/7/2014
Soluble Calcium	18.2	1.00		meq/L	1	5/7/2014
Soluble Magnesium	13.0	1.00		meq/L	1	5/7/2014
Soluble Sodium	56.3	1.00		meq/L	1	5/7/2014

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	C	Value is below Minimum Compound Limit.	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
	N	Tentatively identified compounds	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
	PL	Permit Limit	R	RPD outside accepted recovery limits
	RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits



Element Materials Technology Lafayette
2417 W. Pinhook Road
Lafayette, LA 70508-3344
TEL: 337.235.0483 FAX: 337.233.6540
Website: www.element.com

Analytical Report

(consolidated)

WO#: 14041290

Date Reported: 5/12/2014

CLIENT: Arabie Environmental **Collection Date:** 4/24/2014 1:08:00 PM
Project: Moore/11301
Lab ID: 14041290-012 **Matrix:** SOIL
Client Sample ID B45 (2-3)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SPE				29B/E120.1	Analyst: MXT	
Electrical Conductivity	7.88	0.10	*	mmhos/cm	1	5/6/2014 9:05:00 AM
SODIUM ADSORPTION RATIO				29B/SW6010B 29B	Analyst: STS	
Sodium Adsorption Ratio	8.99	0.100			1	5/7/2014
Soluble Calcium	18.7	1.00		meq/L	1	5/7/2014
Soluble Magnesium	15.4	1.00		meq/L	1	5/7/2014
Soluble Sodium	37.1	1.00		meq/L	1	5/7/2014

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	C	Value is below Minimum Compound Limit.	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
	N	Tentatively identified compounds	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
	PL	Permit Limit	R	RPD outside accepted recovery limits
	RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits



Element Materials Technology Lafayette
2417 W. Pinhook Road
Lafayette, LA 70508-3344
TEL: 337.235.0483 FAX: 337.233.6540
Website: www.element.com

Analytical Report

(consolidated)

WO#: **14041290**

Date Reported: **5/12/2014**

CLIENT: Arabie Environmental **Collection Date:** 4/24/2014 2:21:00 PM
Project: Moore/11301
Lab ID: 14041290-013 **Matrix:** SOIL
Client Sample ID B46 (0-1)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SPE				29B/E120.1	Analyst: MXT	
Electrical Conductivity	12.5	0.10	*	mmhos/cm	1	5/6/2014 9:05:00 AM
SODIUM ADSORPTION RATIO				29B/SW6010B 29B	Analyst: STS	
Sodium Adsorption Ratio	23.7	0.100	*		1	5/7/2014
Soluble Calcium	14.3	1.00		meq/L	1	5/7/2014
Soluble Magnesium	8.78	1.00		meq/L	1	5/7/2014
Soluble Sodium	80.6	1.00		meq/L	1	5/7/2014

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	C	Value is below Minimum Compound Limit.	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
	N	Tentatively identified compounds	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
	PL	Permit Limit	R	RPD outside accepted recovery limits
	RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits



Element Materials Technology Lafayette
2417 W. Pinhook Road
Lafayette, LA 70508-3344
TEL: 337.235.0483 FAX: 337.233.6540
Website: www.element.com

Analytical Report

(consolidated)

WO#: 14041290

Date Reported: 5/12/2014

CLIENT: Arabie Environmental **Collection Date:** 4/24/2014 2:26:00 PM
Project: Moore/11301
Lab ID: 14041290-014 **Matrix:** SOIL
Client Sample ID B46 (1-2)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SPE				29B/E120.1	Analyst: MXT	
Electrical Conductivity	8.33	0.10	*	mmhos/cm	1	5/6/2014 9:05:00 AM
SODIUM ADSORPTION RATIO				29B/SW6010B 29B	Analyst: STS	
Sodium Adsorption Ratio	14.1	0.100	*		1	5/7/2014
Soluble Calcium	10.9	1.00		meq/L	1	5/7/2014
Soluble Magnesium	10.4	1.00		meq/L	1	5/7/2014
Soluble Sodium	45.9	1.00		meq/L	1	5/7/2014

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	C	Value is below Minimum Compound Limit.	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
	N	Tentatively identified compounds	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
	PL	Permit Limit	R	RPD outside accepted recovery limits
	RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits



Element Materials Technology Lafayette
2417 W. Pinhook Road
Lafayette, LA 70508-3344
TEL: 337.235.0483 FAX: 337.233.6540
Website: www.element.com

Analytical Report

(consolidated)

WO#: **14041290**

Date Reported: **5/12/2014**

CLIENT: Arabie Environmental **Collection Date:** 4/24/2014 2:32:00 PM
Project: Moore/11301
Lab ID: 14041290-015 **Matrix:** SOIL
Client Sample ID B46 (2-3)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SPE				29B/E120.1	Analyst: MXT	
Electrical Conductivity	0.84	0.10		mmhos/cm	1	5/6/2014 9:05:00 AM
SODIUM ADSORPTION RATIO				29B/SW6010B 29B	Analyst: STS	
Sodium Adsorption Ratio	5.23	0.100			1	5/7/2014
Soluble Calcium	< 1.00	1.00		meq/L	1	5/7/2014
Soluble Magnesium	< 1.00	1.00		meq/L	1	5/7/2014
Soluble Sodium	4.65	1.00		meq/L	1	5/7/2014

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
C	Value is below Minimum Compound Limit.	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Matrix Interference
N	Tentatively identified compounds	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits



Element Materials Technology Lafayette
2417 W. Pinhook Road
Lafayette, LA 70508-3344
TEL: 337.235.0483 FAX: 337.233.6540
Website: www.element.com

Analytical Report

(consolidated)

WO#: **14041290**

Date Reported: **5/12/2014**

CLIENT: Arabie Environmental **Collection Date:** 4/24/2014 2:55:00 PM
Project: Moore/11301
Lab ID: 14041290-016 **Matrix:** SOIL
Client Sample ID B47 (0-1)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SPE				29B/E120.1	Analyst: MXT	
Electrical Conductivity	8.61	0.10	*	mmhos/cm	1	5/6/2014 9:05:00 AM
SODIUM ADSORPTION RATIO				29B/SW6010B 29B	Analyst: STS	
Sodium Adsorption Ratio	15.6	0.100	*		1	5/7/2014
Soluble Calcium	11.8	1.00		meq/L	1	5/7/2014
Soluble Magnesium	7.94	1.00		meq/L	1	5/7/2014
Soluble Sodium	48.9	1.00		meq/L	1	5/7/2014

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	C	Value is below Minimum Compound Limit.	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
	N	Tentatively identified compounds	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
	PL	Permit Limit	R	RPD outside accepted recovery limits
	RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits



Element Materials Technology Lafayette
2417 W. Pinhook Road
Lafayette, LA 70508-3344
TEL: 337.235.0483 FAX: 337.233.6540
Website: www.element.com

Analytical Report

(consolidated)

WO#: 14041290

Date Reported: 5/12/2014

CLIENT: Arabie Environmental **Collection Date:** 4/24/2014 3:02:00 PM
Project: Moore/11301
Lab ID: 14041290-017 **Matrix:** SOIL
Client Sample ID B47 (1-2)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SPE				29B/E120.1	Analyst: MXT	
Electrical Conductivity	6.91	0.10	*	mmhos/cm	1	5/6/2014 9:05:00 AM
SODIUM ADSORPTION RATIO				29B/SW6010B 29B	Analyst: STS	
Sodium Adsorption Ratio	12.0	0.100	*		1	5/7/2014
Soluble Calcium	9.55	1.00		meq/L	1	5/7/2014
Soluble Magnesium	9.20	1.00		meq/L	1	5/7/2014
Soluble Sodium	36.8	1.00		meq/L	1	5/7/2014

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	C	Value is below Minimum Compound Limit.	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
	N	Tentatively identified compounds	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
	PL	Permit Limit	R	RPD outside accepted recovery limits
	RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits



Element Materials Technology Lafayette
2417 W. Pinhook Road
Lafayette, LA 70508-3344
TEL: 337.235.0483 FAX: 337.233.6540
Website: www.element.com

Analytical Report

(consolidated)

WO#: 14041290

Date Reported: 5/12/2014

CLIENT: Arabie Environmental **Collection Date:** 4/24/2014 3:07:00 PM
Project: Moore/11301
Lab ID: 14041290-018 **Matrix:** SOIL
Client Sample ID B47 (2-3)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SPE				29B/E120.1	Analyst: MXT	
Electrical Conductivity	3.77	0.10		mmhos/cm	1	5/6/2014 10:45:00 AM
SODIUM ADSORPTION RATIO				29B/SW6010B 29B	Analyst: STS	
Sodium Adsorption Ratio	7.80	0.100			1	5/7/2014
Soluble Calcium	5.90	1.00		meq/L	1	5/7/2014
Soluble Magnesium	6.31	1.00		meq/L	1	5/7/2014
Soluble Sodium	19.3	1.00		meq/L	1	5/7/2014

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
C	Value is below Minimum Compound Limit.	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Matrix Interference
N	Tentatively identified compounds	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits



Element Materials Technology Lafayette
2417 W. Pinhook Road
Lafayette, LA 70508-3344
TEL: 337.235.0483 FAX: 337.233.6540
Website: www.element.com

Analytical Report

(consolidated)

WO#: **14041290**

Date Reported: **5/12/2014**

CLIENT: Arabie Environmental **Collection Date:** 4/24/2014 3:25:00 PM
Project: Moore/11301
Lab ID: 14041290-019 **Matrix:** SOIL
Client Sample ID B48 (0-1)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SPE				29B/E120.1	Analyst: MXT	
Electrical Conductivity	0.76	0.10		mmhos/cm	1	5/6/2014 10:45:00 AM
SODIUM ADSORPTION RATIO				29B/SW6010B 29B	Analyst: STS	
Sodium Adsorption Ratio	7.43	0.100			1	5/7/2014
Soluble Calcium	< 1.00	1.00		meq/L	1	5/7/2014
Soluble Magnesium	< 1.00	1.00		meq/L	1	5/7/2014
Soluble Sodium	5.04	1.00		meq/L	1	5/7/2014

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
C	Value is below Minimum Compound Limit.	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Matrix Interference
N	Tentatively identified compounds	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits



Element Materials Technology Lafayette
2417 W. Pinhook Road
Lafayette, LA 70508-3344
TEL: 337.235.0483 FAX: 337.233.6540
Website: www.element.com

Analytical Report

(consolidated)

WO#: **14041290**

Date Reported: **5/12/2014**

CLIENT: Arabie Environmental **Collection Date:** 4/24/2014 3:31:00 PM
Project: Moore/11301
Lab ID: 14041290-020 **Matrix:** SOIL
Client Sample ID B48 (1-2)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SPE				29B/E120.1	Analyst: MXT	
Electrical Conductivity	1.61	0.10		mmhos/cm	1	5/6/2014 10:45:00 AM
SODIUM ADSORPTION RATIO				29B/SW6010B 29B	Analyst: STS	
Sodium Adsorption Ratio	6.13	0.100			1	5/7/2014
Soluble Calcium	2.10	1.00		meq/L	1	5/7/2014
Soluble Magnesium	1.31	1.00		meq/L	1	5/7/2014
Soluble Sodium	8.00	1.00		meq/L	1	5/7/2014

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	C	Value is below Minimum Compound Limit.	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
	N	Tentatively identified compounds	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
	PL	Permit Limit	R	RPD outside accepted recovery limits
	RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits



Element Materials Technology Lafayette
2417 W. Pinhook Road
Lafayette, LA 70508-3344
TEL: 337.235.0483 FAX: 337.233.6540
Website: www.element.com

Analytical Report

(consolidated)

WO#: 14041290

Date Reported: 5/12/2014

CLIENT: Arabie Environmental **Collection Date:** 4/24/2014 3:37:00 PM
Project: Moore/11301
Lab ID: 14041290-021 **Matrix:** SOIL
Client Sample ID B48 (2-3)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SPE				29B/E120.1	Analyst: MXT	
Electrical Conductivity	3.29	0.10		mmhos/cm	1	5/6/2014 10:45:00 AM
SODIUM ADSORPTION RATIO				29B/SW6010B 29B	Analyst: STS	
Sodium Adsorption Ratio	7.86	0.100			1	5/7/2014
Soluble Calcium	5.44	1.00		meq/L	1	5/7/2014
Soluble Magnesium	4.01	1.00		meq/L	1	5/7/2014
Soluble Sodium	17.1	1.00		meq/L	1	5/7/2014

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	C	Value is below Minimum Compound Limit.	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
	N	Tentatively identified compounds	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
	PL	Permit Limit	R	RPD outside accepted recovery limits
	RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits



Element Materials Technology Lafayette
2417 W. Pinhook Road
Lafayette, LA 70508-3344
TEL: 337.235.0483 FAX: 337.233.6540
Website: www.element.com

Analytical Report

(consolidated)

WO#: 14041290

Date Reported: 5/12/2014

CLIENT: Arabie Environmental **Collection Date:** 4/24/2014 1:35:00 PM
Project: Moore/11301
Lab ID: 14041290-022 **Matrix:** AQUEOUS
Client Sample ID SW 1

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
TPH-D/O IN WATER BY SW8015						
TPH DRO/ORO IN WATER BY SW8015						
TPH (Diesel Range)	0.21	0.15		mg/L	1	5/5/2014 7:15:00 PM
TPH (Oil Range)	0.21	0.13		mg/L	1	5/5/2014 7:15:00 PM
Surr: 4-Terphenyl-d14	50.0	36.8 - 128		%REC	1	5/5/2014 7:15:00 PM
CHLORIDES						
SW9253						
Analyst: SXP						
Chlorides	284	50		mg/L	5	5/5/2014 10:29:00 AM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	C	Value is below Minimum Compound Limit.	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
	N	Tentatively identified compounds	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
	PL	Permit Limit	R	RPD outside accepted recovery limits
	RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits



Element Materials Technology Lafayette
2417 W. Pinhook Road
Lafayette, LA 70508-3344
TEL: 337.235.0483 FAX: 337.233.6540
Website: www.element.com

Analytical Report

(consolidated)

WO#: **14041290**

Date Reported: **5/12/2014**

CLIENT: Arabie Environmental

Collection Date: 4/24/2014 4:25:00 PM

Project: Moore/11301

Lab ID: 14041290-023

Matrix: AQUEOUS

Client Sample ID SW 2

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
TPH-D/O IN WATER BY SW8015						
				SW8015B	SW3510C	Analyst: MMV
TPH DRO/ORO IN WATER BY SW8015						
TPH (Diesel Range)	0.53	0.16		mg/L	1	5/5/2014 7:30:00 PM
TPH (Oil Range)	0.51	0.15		mg/L	1	5/5/2014 7:30:00 PM
Surr: 4-Terphenyl-d14	66.1	36.8 - 128		%REC	1	5/5/2014 7:30:00 PM
CHLORIDES						
				SW9253		Analyst: SXP
Chlorides	227	40		mg/L	4	5/5/2014 10:29:00 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
C	Value is below Minimum Compound Limit.	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Matrix Interference
N	Tentatively identified compounds	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits



Element Materials Technology Lafayette
2417 W. Pinhook Road
Lafayette, LA 70508-3344
TEL: 337.235.0483 FAX: 337.233.6540
Website: www.element.com

Analytical Report

(consolidated)

WO#: **14041290**

Date Reported: **5/12/2014**

CLIENT: Arabie Environmental **Collection Date:** 4/24/2014 4:30:00 PM
Project: Moore/11301
Lab ID: 14041290-024 **Matrix:** AQUEOUS
Client Sample ID SW 3

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
TPH-D/O IN WATER BY SW8015						
TPH DRO/ORO IN WATER BY SW8015						
TPH (Diesel Range)	0.19	0.15		mg/L	1	5/5/2014 7:44:00 PM
TPH (Oil Range)	< 0.14	0.14		mg/L	1	5/5/2014 7:44:00 PM
Surr: 4-Terphenyl-d14	29.6	36.8 - 128	SM	%REC	1	5/5/2014 7:44:00 PM

NOTES:

Note: Low surrogate recovery caused by emulsions during extraction procedure.

CHLORIDES					SW9253	Analyst: SXP
Chlorides	248	20		mg/L	2	5/5/2014 10:29:00 AM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	C	Value is below Minimum Compound Limit.	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
	N	Tentatively identified compounds	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
	PL	Permit Limit	R	RPD outside accepted recovery limits
	RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits



Element Materials Technology Lafayette
2417 W. Pinhook Road
Lafayette, LA 70508-3344
TEL: 337.235.0483 FAX: 337.233.6540
Website: www.element.com

QC SUMMARY REPORT

WO#: 14041290

12-May-14

Client: Arabie Environmental

Project: Moore/11301

BatchID: 11033

Sample ID	LCS-D-11033	SampType:	LCS	TestCode:	8015_DO_W	Units:	mg/L	Prep Date:	5/1/2014	RunNo:	33433
Client ID:	LCSW	Batch ID:	11033	TestNo:	SW8015B	SW3510C		Analysis Date:	5/5/2014	SeqNo:	755579
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
TPH (Diesel Range)		1.71		0.13	2.50	0	68.5	62.3	110		
Surr: 4-Terphenyl-d14		0.07			0.10		69.0	36.8	128		

Sample ID	LCSD-D-11033	SampType:	LCSD	TestCode:	8015_DO_W	Units:	mg/L	Prep Date:	5/1/2014	RunNo:	33433
Client ID:	LCSS02	Batch ID:	11033	TestNo:	SW8015B	SW3510C		Analysis Date:	5/5/2014	SeqNo:	755580
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
TPH (Diesel Range)		1.75		0.13	2.50	0	69.8	62.3	110	1.71	1.91 14.1
Surr: 4-Terphenyl-d14		0.07			0.10		68.2	36.8	128		0 40

Sample ID	LCSD-M-11033	SampType:	LCSD	TestCode:	8015_DO_W	Units:	mg/L	Prep Date:	5/1/2014	RunNo:	33433
Client ID:	LCSS02	Batch ID:	11033	TestNo:	SW8015B	SW3510C		Analysis Date:	5/5/2014	SeqNo:	755581
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
TPH (Oil Range)		2.61		0.12	3.00	0	87.1	63.8	124	2.14	20.2 23.2
Surr: 4-Terphenyl-d14		0.07			0.10		71.6	36.8	128		0 40

Sample ID	LCS-M-11033	SampType:	LCS	TestCode:	8015_DO_W	Units:	mg/L	Prep Date:	5/1/2014	RunNo:	33433
Client ID:	LCSW	Batch ID:	11033	TestNo:	SW8015B	SW3510C		Analysis Date:	5/5/2014	SeqNo:	755582
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
TPH (Oil Range)		2.14		0.12	3.00	0	71.2	63.8	124		

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
ND Not Detected at the Reporting Limit
PL Permit Limit
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits

C Value is below Minimum Compound Limit.
M Matrix Interference
P Second column confirmation exceeds
RL Reporting Detection Limit



Element Materials Technology Lafayette
2417 W. Pinhook Road
Lafayette, LA 70508-3344
TEL: 337.235.0483 FAX: 337.233.6540
Website: www.element.com

QC SUMMARY REPORT

WO#: 14041290

12-May-14

Client: Arabie Environmental

Project: Moore/11301

BatchID: 11033

Sample ID	LCS-M-11033	SampType:	LCS	TestCode:	8015_DO_W	Units:	mg/L	Prep Date:	5/1/2014	RunNo:	33433
Client ID:	LCSW	Batch ID:	11033	TestNo:	SW8015B	SW3510C		Analysis Date:	5/5/2014	SeqNo:	755582
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Surr: 4-Terphenyl-d14		0.08			0.10		76.3	36.8	128		

Sample ID	MB-11033	SampType:	MBLK	TestCode:	8015_DO_W	Units:	mg/L	Prep Date:	5/1/2014	RunNo:	33433
Client ID:	PBW	Batch ID:	11033	TestNo:	SW8015B	SW3510C		Analysis Date:	5/5/2014	SeqNo:	755583
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
TPH (Diesel Range)		< 0.13		0.13							
TPH (Oil Range)		< 0.12		0.12							
Surr: 4-Terphenyl-d14		0.05			0.10		46.9	36.8	128		

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
ND Not Detected at the Reporting Limit
PL Permit Limit
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits

C Value is below Minimum Compound Limit.
M Matrix Interference
P Second column confirmation exceeds
RL Reporting Detection Limit



Element Materials Technology Lafayette
2417 W. Pinhook Road
Lafayette, LA 70508-3344
TEL: 337.235.0483 FAX: 337.233.6540
Website: www.element.com

QC SUMMARY REPORT

WO#: 14041290

12-May-14

Client: Arabie Environmental

Project: Moore/11301

BatchID: 11046

Sample ID	14041290-009ADUP	SampType:	DUP	TestCode:	SAR_S	Units:		Prep Date:	5/5/2014	RunNo:	33504		
Client ID:	B44 (2-3)	Batch ID:	11046	TestNo:	29B/SW6010	29B		Analysis Date:	5/7/2014	SeqNo:	757716		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sodium Adsorption Ratio		5.03		0.100						5.063	0.605	20	
Soluble Calcium		3.48		1.00						3.502	0.758	20	
Soluble Magnesium		3.04		1.00						3.039	0.189	20	
Soluble Sodium		9.09		1.00						9.157	0.763	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
ND Not Detected at the Reporting Limit
PL Permit Limit
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits

C Value is below Minimum Compound Limit.
M Matrix Interference
P Second column confirmation exceeds
RL Reporting Detection Limit



Element Materials Technology Lafayette
2417 W. Pinhook Road
Lafayette, LA 70508-3344
TEL: 337.235.0483 FAX: 337.233.6540
Website: www.element.com

QC SUMMARY REPORT

WO#: 14041290

12-May-14

Client: Arabie Environmental

Project: Moore/11301

BatchID: 11047

Sample ID	14041320-009ADUP	SampType:	DUP	TestCode:	SAR_S	Units:		Prep Date:	5/5/2014	RunNo:	33504		
Client ID:	ZZZZZZ	Batch ID:	11047	TestNo:	29B/SW6010	29B		Analysis Date:	5/7/2014	SeqNo:	757738		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sodium Adsorption Ratio		18.6		0.100						18.48	0.438	20	*
Soluble Calcium		46.6		1.00						45.58	2.13	20	
Soluble Magnesium		6.90		1.00						6.846	0.731	20	
Soluble Sodium		96.0		1.00						94.61	1.42	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
ND Not Detected at the Reporting Limit
PL Permit Limit
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits

C Value is below Minimum Compound Limit.
M Matrix Interference
P Second column confirmation exceeds
RL Reporting Detection Limit



Element Materials Technology Lafayette
2417 W. Pinhook Road
Lafayette, LA 70508-3344
TEL: 337.235.0483 FAX: 337.233.6540
Website: www.element.com

QC SUMMARY REPORT

WO#: 14041290

12-May-14

Client: Arabie Environmental

Project: Moore/11301

BatchID: R33404

Sample ID	MB-R33404	SampType:	MBLK	TestCode:	CL_W_9253	Units:	mg/L	Prep Date:		RunNo:	33404
Client ID:	PBW	Batch ID:	R33404	TestNo:	SW9253			Analysis Date:	5/5/2014	SeqNo:	754815
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Chlorides		< 10		10							

Sample ID	LCSD-R33404	SampType:	LCSD	TestCode:	CL_W_9253	Units:	mg/L	Prep Date:		RunNo:	33404
Client ID:	LCSS02	Batch ID:	R33404	TestNo:	SW9253			Analysis Date:	5/5/2014	SeqNo:	754816
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Chlorides		117		10	100	0	117	80	120	110	6 20

Sample ID	LCS-R33404	SampType:	LCS	TestCode:	CL_W_9253	Units:	mg/L	Prep Date:		RunNo:	33404
Client ID:	LCSW	Batch ID:	R33404	TestNo:	SW9253			Analysis Date:	5/5/2014	SeqNo:	754817
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Chlorides		110		10	100	0	110	80	120		

Sample ID	14050061-002AMSD	SampType:	MSD	TestCode:	CL_W_9253	Units:	mg/L	Prep Date:		RunNo:	33404
Client ID:	ZZZZZZ	Batch ID:	R33404	TestNo:	SW9253			Analysis Date:	5/5/2014	SeqNo:	754837
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Chlorides		10,500		500	5,000	5,148	106	80	120	10,300	2 20

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
ND Not Detected at the Reporting Limit
PL Permit Limit
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits

C Value is below Minimum Compound Limit.
M Matrix Interference
P Second column confirmation exceeds
RL Reporting Detection Limit



Element Materials Technology Lafayette
2417 W. Pinhook Road
Lafayette, LA 70508-3344
TEL: 337.235.0483 FAX: 337.233.6540
Website: www.element.com

QC SUMMARY REPORT

WO#: 14041290

12-May-14

Client: Arabie Environmental

Project: Moore/11301

BatchID: R33404

Sample ID	14050061-002AMS	SampType:	MS	TestCode:	CL_W_9253	Units:	mg/L	Prep Date:		RunNo:	33404	
Client ID:	ZZZZZZ	Batch ID:	R33404	TestNo:	SW9253			Analysis Date:	5/5/2014	SeqNo:	754839	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorides		10,300	500	5,000	5,148	103	80	120				

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
ND Not Detected at the Reporting Limit
PL Permit Limit
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits

C Value is below Minimum Compound Limit.
M Matrix Interference
P Second column confirmation exceeds
RL Reporting Detection Limit



Element Materials Technology Lafayette
2417 W. Pinhook Road
Lafayette, LA 70508-3344
TEL: 337.235.0483 FAX: 337.233.6540
Website: www.element.com

QC SUMMARY REPORT

WO#: 14041290

12-May-14

Client: Arabie Environmental

Project: Moore/11301

BatchID: R33436

Sample ID	MB-R33436	SampType:	MBLK	TestCode:	EC_S	Units:	mmhos/cm	Prep Date:		RunNo:	33436
Client ID:	PBS	Batch ID:	R33436	TestNo:	29B/E120.1			Analysis Date:	5/6/2014	SeqNo:	757038
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Electrical Conductivity		< 0.10		0.10							

Sample ID	R33436LCS1	SampType:	LCS1	TestCode:	EC_S	Units:	mmhos/cm	Prep Date:		RunNo:	33436
Client ID:	ZZZZZZ	Batch ID:	R33436	TestNo:	29B/E120.1			Analysis Date:	5/6/2014	SeqNo:	757039
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Electrical Conductivity		0.43		0.10	0.41	0	106	89.49	110.51		

Sample ID	R33436LCS2	SampType:	LCS2	TestCode:	EC_S	Units:	mmhos/cm	Prep Date:		RunNo:	33436
Client ID:	ZZZZZZ	Batch ID:	R33436	TestNo:	29B/E120.1			Analysis Date:	5/6/2014	SeqNo:	757040
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Electrical Conductivity		54.9		0.10	53.00	0	104	90	110		

Sample ID	14041290-009ADUP	SampType:	DUP	TestCode:	EC_S	Units:	mmhos/cm	Prep Date:		RunNo:	33436
Client ID:	B44 (2-3)	Batch ID:	R33436	TestNo:	29B/E120.1			Analysis Date:	5/6/2014	SeqNo:	757052
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Electrical Conductivity		1.94		0.10						1.99	2.59 20

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
ND Not Detected at the Reporting Limit
PL Permit Limit
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits

C Value is below Minimum Compound Limit.
M Matrix Interference
P Second column confirmation exceeds
RL Reporting Detection Limit



Element Materials Technology Lafayette
2417 W. Pinhook Road
Lafayette, LA 70508-3344
TEL: 337.235.0483 FAX: 337.233.6540
Website: www.element.com

QC SUMMARY REPORT

WO#: 14041290

12-May-14

Client: Arabie Environmental

Project: Moore/11301

BatchID: R33449

Sample ID	MB-R33449	SampType:	MBLK	TestCode:	EC_S	Units:	mmhos/cm	Prep Date:		RunNo:	33449
Client ID:	PBS	Batch ID:	R33449	TestNo:	29B/E120.1			Analysis Date:	5/6/2014	SeqNo:	756050
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Electrical Conductivity		< 0.10		0.10							

Sample ID	R33449LCS1	SampType:	LCS1	TestCode:	EC_S	Units:	mmhos/cm	Prep Date:		RunNo:	33449
Client ID:	ZZZZZZ	Batch ID:	R33449	TestNo:	29B/E120.1			Analysis Date:	5/6/2014	SeqNo:	756051
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Electrical Conductivity		0.44		0.10	0.41	0	107	89.49	110.51		

Sample ID	R33449LCS2	SampType:	LCS2	TestCode:	EC_S	Units:	mmhos/cm	Prep Date:		RunNo:	33449
Client ID:	ZZZZZZ	Batch ID:	R33449	TestNo:	29B/E120.1			Analysis Date:	5/6/2014	SeqNo:	756052
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Electrical Conductivity		54.9		0.10	53.00	0	104	90	110		

Sample ID	14041320-009ADUP	SampType:	DUP	TestCode:	EC_S	Units:	mmhos/cm	Prep Date:		RunNo:	33449
Client ID:	ZZZZZZ	Batch ID:	R33449	TestNo:	29B/E120.1			Analysis Date:	5/6/2014	SeqNo:	756066
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Electrical Conductivity		17.2		0.10						17.68	2.52 20 *

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
ND Not Detected at the Reporting Limit
PL Permit Limit
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits

C Value is below Minimum Compound Limit.
M Matrix Interference
P Second column confirmation exceeds
RL Reporting Detection Limit



Element Materials Technology Lafayette
2417 W. Pinhook Road
Lafayette, LA 70508-3344
TEL: 337.235.0483 FAX: 337.233.6540
Website: www.element.com

Sample Log-In Check List

Client Name: **ARABIE_ENV**

Work Order Number: **14041290**

RcptNo: **1**

Logged by: **Heather Delay** **4/28/2014 12:10:00 PM**

Completed By: **Heather Delay** **4/28/2014 12:53:41 PM**

Reviewed By: **Caitlin Duplantis** **4/29/2014 10:18:48 AM**

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? Element

Log In

3. Coolers are present? Yes ☒ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☒ No ☐
Custody seals intact on shipping container/cooler? Yes ☐ No ☐ Not Present ☒
No. Seal Date: Signed By:
5. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
6. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☒ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
10. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes ☐ No ☐ No VOA Vials ☒
12. Were any sample containers received broken? Yes ☐ No ☒
13. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
14. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
15. Is it clear what analyses were requested? Yes ☒ No ☐
16. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: Date
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:

Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.5	Good	Not Present			



element[™]

Chain of Custody

Laboratory Number: 14041290

Client Information:		Billing Information:		PO Number:		Project Name/Number:		Page 1 of 3	
Arabie Environmental		- Same -				MOORE / 11301		Matrix Code	
Duane Piranio						Sampler's Signature:		DW = Drinking Water WW = Waste Water GW = Ground Water	
P.O. Box 928						Required QC Level		AQ = Aqueous OT = Other SL = Sludge O = Oil F = Food NG = Natural Gas NGL = Natural Gas Liquid PW = Produced Water CF = Completion Fluid	
Lake Charles, Louisiana 70602		Ext:				Bill Monthly		SOL = Solid SO = Soil SW = Swab	
Phone Number:						<input type="checkbox"/> Yes		F = Food NG = Natural Gas NGL = Natural Gas Liquid PW = Produced Water CF = Completion Fluid	
Fax Number:						<input type="checkbox"/> No			
E-mail Address:						Shipping Method:			
						UPS / FedEx / Airborne			
						DHL / Element / Hand / Mail			

Sample ID/Description	Which Regulations Apply: <input type="checkbox"/> RCRA <input type="checkbox"/> POTW <input type="checkbox"/> NPDES <input type="checkbox"/> USDA/FDA <input type="checkbox"/> RECAP/RISC	Turn Time <input checked="" type="checkbox"/> Standard <input type="checkbox"/> RUSH <input type="checkbox"/> 1 Day <input type="checkbox"/> 2 Day <input type="checkbox"/> Other	(Rush turn times will incur a surcharge and must be pre-approved by lab.)	Collection Information		Matrix	Quantity	Type P=Plastic, V=Vial	Pres. HCl, HNO ₃ , H ₂ SO ₄ , NaOH, Na ₂ S ₂ O ₃	Requested Tests	Comments
				Date							
				Time	Grab / Composite						
B 42 (0-1)				4/24	1042	G	1	G			
B 42 (1-2)					1050						
B 42 (2-3)					1057						
B 43 (0-1)					1123						
B 43 (1-2)					1130						
B 43 (2-3)					1157						
B 44 (0-1)					1207						
B 44 (1-2)					1213						
B 44 (2-3)				4/24	1220	G	1	G			

Relinquished by	Date/Time	Received by	Date/Time	Field Notes:	
				Received at lab on ice?	Temp
	4/28/14 10:00	John Hebert	4/28/14 10:20	<input checked="" type="checkbox"/> Yes	2.59°C
John Hebert	4/28/14 18:10	Matthew Gray	4/28/14 18:10	<input type="checkbox"/> No	

All samples submitted to Element Materials Technology for analysis are accepted on a custodial basis only. Ownership of the material remains with the client submitting the samples.

Element Materials Technology reserves the right to return unused sample portions.

9301 Innovation Drive, Suite 115 Daleville, IN 47334-6569 USA P 765-378-4103 F 765-378-4109	629 Washington St. Suite 300 Columbus, IN 47201-8231 USA P 812-375-0331 F 812-375-0731	2121 East Washington Boulevard Fort Wayne, IN 46803-1328 USA P 260-471-7000 F 260-471-7777	560 South Zimmar Road Warsaw, IN 46580-2368 USA P 574-287-3205 F 574-288-6569	3371 Cleveland Road, Suite 100A South Bend, IN 46528-9780 USA P 574-277-0707 F 574-273-5698	2417 W. Pinhook Rd Lafayette, LA 70508-3344 USA P 337-235-9483 F 337-233-6540
---	--	--	---	---	---



Chain of Custody

Laboratory Number: 14041290

Client Information:		Billing Information:		PO Number:		Project Name/Number:		Page 2 of 3	
Company Name: <i>Archie Env</i>						Matrix Code		DW = Drinking Water WW = Waste Water GW = Ground Water AQ = Aqueous OT = Other SL = Sludge O = Oil SO = Soil F = Food SW = Swab NG = Natural Gas NGL = Natural Gas Liquid PW = Produced Water CF = Completion Fluid	
Contact Name:				Quote Number:		Sampler's Signature			
Address:				Required QC Level		Shipping Method:			
City, State Zip:				Bill Monthly		<input type="checkbox"/> Yes <input type="checkbox"/> No		UPS / FedEx / Airborne DHL / <u>Element</u> / Hand / Mail	
Phone Number:		Ext:		Ext:					
Fax Number:									
E-mail Address:									

Which Regulations Apply:	Turn Time	(Rush turn times will incur a surcharge and must be pre-approved by lab.)	Collection Information			Container	Pres.	Requested Tests	Comments	
			Collection Information		Quantity					
			Date	Time						Matrix
<input type="checkbox"/> RCRA <input type="checkbox"/> POTW <input type="checkbox"/> NPDES <input type="checkbox"/> USDOA/FDA <input type="checkbox"/> RECAP/RISC	<input type="checkbox"/> Standard <input type="checkbox"/> RUSH <input type="checkbox"/> 1 Day <input type="checkbox"/> 2 Day <input type="checkbox"/> Other									
Sample ID/Description	Date	Time	Grab / Composite	Matrix	Type					
B45 (0-1)	4/24	1254	G	SO	G=Glass, V=Vial	1	HCl, HNO ₃ , H ₂ SO ₄ , NaOH, Na ₂ S ₂ O ₃	EC		
B45 (1-2)		1301						SAR		
B45 (2-3)		1308								
B46 (0-1)		1421								
B46 (1-2)		1426								
B46 (2-3)		1432								
B47 (0-1)		1455								
B47 (1-2)		1502								
B47 (2-3)	4/24	1507	G	SO	G	1				

Relinquished by: John Hebert

Date/Time: 4/28/14 10:20

Received by: John Hebert

Date/Time: 4/28/14 10:20

Field Notes:

Received at lab on ice? ☒ Yes ☐ No Temp: 2.5 g#

All samples submitted to Element Materials Technology for analysis are accepted on a custodial basis only. Ownership of the material remains with the client submitting the samples. Element Materials Technology reserves the right to return unused sample portions.

9301 Innovation Drive, Suite 115 Daleville, IN 47334-0509 USA P 765-378-4103 F 765-378-4109	629 Washington St, Suite 300 Columbus, IN 47201-0331 USA P 812-375-0531 F 812-375-0731	2121 East Washington Boulevard Fort Wayne, IN 46803-1328 USA P 260-471-7000 F 260-471-7777	560 South Zimmer Road Warsaw, IN 46580-2268 USA P 574-267-3305 F 574-269-6569	3371 Cleveland Road, Suite 100A South Bend, IN 46528-9780 USA P 574-277-0707 F 574-273-6099	2417 W. Pinhook Rd Lafayette, LA 70508-3344 USA P 337-235-0483 F 337-233-4540
---	--	--	---	---	---



Chain of Custody

Chain of Custody

Laboratory Number:

14041210

Client Information:		Billing Information:		PO Number:		Project Name/Number:		Page 3 of 3	
Company Name: <u>Arabic Env</u>						<u>MORE / 11301</u>		Matrix Code	
Contact Name:				Quote Number:		Sampler's Signature		DW = Drinking Water	
Address:				Required QC Level				WW = Waste Water	
City, State Zip:				Bill Monthly				GW = Ground Water	
Phone Number:		Ext:		<input type="checkbox"/> Yes				AQ = Aqueous	
Fax Number:				<input type="checkbox"/> No				OT = Other	
E-mail Address:								SL = Sludge	
								O = Oil	
								F = Food	
								NG = Natural Gas	
								NGL = Natural Gas Liquid	
								PW = Produced Water	
								CF = Completion Fluid	

Sample ID/Description	Which Regulations Apply: <input type="checkbox"/> RCRA <input type="checkbox"/> POTW <input type="checkbox"/> NPDES <input type="checkbox"/> USDA/FDA <input type="checkbox"/> RECAP/RI/SC	Drinking Water <input type="checkbox"/> Distribution <input type="checkbox"/> Special <input type="checkbox"/> State <input type="checkbox"/> Other	Turn Time <input type="checkbox"/> Standard <input type="checkbox"/> RUSH <input type="checkbox"/> 1 Day <input type="checkbox"/> 2 Day <input type="checkbox"/> Other		(Rush turn times will incur a surcharge and must be pre-approved by lab.)		Container		Pres. HCl, HNO ₃ , H ₂ SO ₄ , NaOH, Na ₂ S ₂ O ₃	Requested Tests				Comments
			Collection Information			Quantity	Type P=Plastic, G=Glass, V=Vial	EC		SAR	(Lab. #s)	TPH-D/O		
			Date	Time	Grab / Composite								Matrix	
B 48 (0-1)			4/24	1525	G	1	G	1		X	X			
B 48 (1-2)				1531		1	G			X	X			
B 48 (2-3)				1537		1	G			X	X			
SW 1				1335		2	P,G			X	X			
SW 2			↓	1625	↓	2	P,G	1		X	X			
SW 3			4/24	1630	G	2	P,G			X	X			

Relinquished by	Date/Time		Received by		Date/Time		Field Notes:
	Signature	Signature	Signature	Signature	Signature	Signature	
1	<u>John Hebert</u>	<u>John Hebert</u>	<u>John Hebert</u>	<u>John Hebert</u>	<u>4/28/14</u>	<u>10:20</u>	Received at lab on ice?
2	<u>John Hebert</u>	<u>John Hebert</u>	<u>John Hebert</u>	<u>John Hebert</u>	<u>4/28/14</u>	<u>12:10</u>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Temp: <u>2.5 gr</u>
3							

All samples submitted to Element Materials Technology for analysis are accepted on a custodial basis only. Ownership of the material remains with the client submitting the samples.

Element Materials Technology reserves the right to return unused sample portions.

9301 Innovation Drive, Suite 115 Daleville, IN 47334-0569 USA P 765-378-4103 F 765-378-4109	629 Washington St. Suite 300 Columbus, IN 47201-6231 USA P 812-375-0531 F 812-375-0731	2121 East Washington Boulevard Fort Wayne, IN 46803-1328 USA P 260-471-7000 F 260-471-7777	560 South Zimmer Road Warsaw, IN 46588-2368 USA P 574-267-3305 F 574-268-4569	3371 Cleveland Road, Suite 100A South Bend, IN 46628-9730 USA P 574-277-0707 F 574-273-5699	2417 W. Pinhook Rd Lafayette, LA 70508-3344 USA P 337-235-0483 F 337-235-6540
---	--	--	---	---	---